

REFLECTIONS ON THE MAṄḌALA AND MODERN COSMOLOGY

Pema Jigdrel



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Ogyen Samten Ling
Muni - Condove

Traditional Buddhist cosmology, still studied in Tibetan and Himalayan communities, is characterized by the flat Earth conception; therefore, it is understandable that its acceptance is strongly discouraged, if not prevented, by the spread of modern cosmology. The depictions of the universe peculiar to Tibetan religious art may be aesthetically beautiful, fascinating, but they appear as suggestive evocations of an archaic, antiquated view of the world.¹

The modern cosmological model, developed by agnostic, atheist and Christian researchers, seems to have convinced even the most orthodox defenders of the Buddha's *dharma* to abandon the traditional cosmological doctrine taught in the philosophical treatises of the *Abhidharma*.²

The Dalai Lama expressed himself thus: "My confidence in venturing into science lies in my basic belief that as in science so in Buddhism, understanding the nature of reality is pursued by means of critical investigation: if scientific analysis were conclusively to demonstrate certain claims in Buddhism to be false, then we must accept the findings of science and abandon those claims."³ "My own view is that Buddhism must abandon many aspects of the Abhidharma cosmology."⁴

The 14th Dalai Lama's abandonment of traditional cosmology is the conclusion of a complex process of cultural assimilation that began three centuries ago in Amdo, the north-eastern region of old Tibet. It was there that Western cosmological science began to penetrate Tibetan Buddhism.

The notion of a spherical Earth was introduced to China by Jesuit missionaries in the early 17th century, but the first work in Tibetan to attest to it is a collection of writings on astronomy, the "New Chinese Astronomy," that was translated from Mongolian in 1715 and circulated in Amdo.⁵

Western scientific knowledge was used by the Jesuits as a means for the enculturation of Christianity in China.⁶ The revelation of the new astronomy also deeply struck some Tibetan lamas who got to study it in Beijing in the 18th century. Thus it was that the prominent court master

¹ See Huntington's publication, full of pictures illustrating Buddhist cosmological conceptions.

² See Kongtrul, pp. 107-145; Kloetzli, pp. 23-43.

³ Dalai, p. 3.

⁴ Ibid, p. 80.

⁵ See Kuijp, pp. 52-55; Yongdan 2015, p. 184; Yongdan 2018, p. 6, §17.

⁶ See Yongdan 2015, p. 180; Yongdan 2017, p. 93; Sheehy, p. 327.

Akya Lobzang Tenpai Gyaltzen (1708-1768) came to embrace the doctrine of the earth's sphericity, despite the fact that it contradicted the *Abhidharma*: "This physical Earth is spherical and the sun, moon and other planets are orbiting around it. Because of the movements, the moon blocks sunlight. When the sun, Earth and moon are aligned together, the Earth's shadow covers the moon, and thus the lunar eclipse occurs."⁷ In China, the Jesuits taught both the geocentric and heliocentric systems, but the court of the Qing Empire adopted the former, which explains the aforementioned claim of the prestigious Tibetan lama.⁸

Although the notion of a spherical Earth came to Tibet in the 1700s, it was never officially adopted throughout the Land of the Snows. In Lhasa, the capital of central Tibet, in 1922 the director of the Institute of Medicine and Astrology (*Mentsikhang*) asked a leading scholar, who had come from Amdo, to teach the system of the "new Chinese astronomy";⁹ nevertheless, in the 1940s the sphericity of the Earth was still a debated issue.

Tibetan scholar Gendün Chöphel in 1938, while in India, wrote an article denouncing the dullness of Tibetans unable to understand the truth of the round Earth:¹⁰ "Among all of the Buddhists in Singhala [Sri Lanka], Burma, Siam, Japan, and so forth, there is not one who says that it is untrue that it is round. Yet we in Tibet still hold stubbornly to the position that it is not."¹¹

With the Dalai Lama's abandonment of *Abhidharma* cosmology, it seems that non-Buddhist science has won the debate. On the other hand, in this day and age, how could any acculturated and sane person question the established notion of a spherical Earth? Yet, the Dalai Lama's statement has implications that should lead one to reflect on his real motives and purposes.

So far, the only Tibetan master who has expressed his disagreement in a publication has been Thinley Norbu (1931-2011), eldest son of Dudjom Rinpoche. In this passage he alludes to the Dalai Lama, without explicitly naming him: "The Buddhist cosmological system of the sutras and the mandala tradition of Mantrayana are not accepted by those who only be-

⁷ Yongdan 2018, p. 6, §16.

⁸ Ibid., §17.

⁹ See Yongdan 2017, p. 110.

¹⁰ See Yongdan 2017, p. 102, n. 9.

¹¹ Lopez 2006, p. 16; Lopez 2008, p. 58.

lieve in a small part of material existence. It is not only these nonbelievers who choose material explanations of cosmology, however, but even spiritual leaders. Some years ago, a Buddhist leader was interviewed who said he believed in some Buddhist teachings but had doubts about the Buddhist model of the universe taught in the sutras. This answer causes goose bumps."¹²

What would be the problematic implications of denying traditional cosmology? In the case of the *sūtras*, the exoteric teachings of the *theravāda* tradition and *mahāyāna*, perhaps the difficulties could be resolved on the philosophical level, as the Dalai Lama seems willing to argue; but in the case of the *tantras*, the esoteric teachings of the *vajrayāna* or *mantrayāna*, there are some important "practical" difficulties, due to the method of meditation on the *maṇḍala*.

The Sanskrit word *maṇḍala* has the general sense of "circle." In the *vajrayāna* it is primarily employed to denote the offering of the world and the representation of the divine dimensions that transcend the world. The first *maṇḍala* is offered to the masters, great bodhisattvas and buddhas;¹³ instead, the second *maṇḍala* is mentally reproduced in meditation in order to purify and transform the world.

Regarding the *maṇḍala* offering, a distinction must be made between the outer "container world," namely the environment, and the inner "contained world," meaning the beings living in the environment.

The outer world is the circle characterized by the expanses of water and land. The traditional representation of four major and eight minor islands has only symbolic value in reference to the general variety of environments in the four directions of the circle.

In the centre of the circle is the mountain that constitutes the axis of the world, being aligned with the pole star.¹⁴ Its Sanskrit name is Meru or Sumeru. Although it exceeds all other mountains in height, it is not visible; moreover, it is shaped like an inverted pyramid or cone and is the abode of powerful non-human entities. Other abodes of divine beings

¹² Norbu, p. 125. Cf. Sheehy, pp. 339-340. Sheehy (p. 339, n. 52) points out that the entire section entitled "The Meaning of Mandala and Buddhist Cosmology" (Norbu, pp. 124-144), where the master criticizes Buddhist modernism and Western materialism, was excluded from the Tibetan edition published in 2009, that is, three years after the publication of the English translation made by the author.

¹³ Cf. Sheehy, p. 323; Norbu, p. 126.

¹⁴ See Kloetzli, p. 43.

tower above its summit. The Sun and Moon are disks that revolve around Meru, just as the fixed stars do. The Sun, Moon and stars too are abodes of divine beings.¹⁵

So, the basic characteristics of the outer world are the circular dimension, flat and stationary, the invisible presence of Mount Meru at the centre and the rotation of the disks of the Sun and Moon around it, together with the fixed stars. These aspects are not only set forth in the exoteric sources of the *Abhidharma*, but appear likewise in the esoteric sources of the *vajrayāna*, for example the *Kālacakra-tantra*, which is characterized by an elaborate astrological doctrine.¹⁶

Buddhaghosa (5th century) summarizes the Buddhist representation of the world with this image: "Just as in a great lake there were a blue lotus, and the lotus is in the middle with four leaves. The lotus bud is like Mount Sineru [Sumeru], the four leaves are like the four continents and the surrounding waters like the rest of the space. This is well known to great beings with psychic powers who travel through space, and see Mount Sineru and its four continents like the blue lotus in the middle with four leaves and the surrounding waters like the rest of the space."¹⁷

The offering of the outer *maṇḍala* essentially concerns this world, yet it can also include countless other worlds. In fact, our world is part of a more complex system of a thousand worlds, referred to as a "minor" one: "a thousand times the world in which the sun and the moon turn and light up the quarters with their radiance",¹⁸ thus taught the Buddha. A "medium" system comprises a thousand smaller systems, and a "great" system groups together a thousand medium systems, a billion worlds.¹⁹

The second *maṇḍala* is the circle of the deities who transcend the world, namely buddhas and great bodhisattvas. While beings living in the world are subject to the karmic becoming of *samsāra*, birth and death, the deities of the *maṇḍala* are free of it. There are numerous *maṇḍalas* of this kind, distinguished by particular abodes and deities.

A fundamental method of meditation of the *tantras* classified as *mahāyoga* or *yogottara* is the "process of creation."²⁰ It essentially consists

¹⁵ See Kloetzli, p. 29.

¹⁶ Cf. Henning, p. 213; Kongtrul, pp. 147-158.

¹⁷ Tan 2011, p. 163.

¹⁸ Tan 2008, pp. 13-14.

¹⁹ Ibid. Cf. Patrul, p. 288.

²⁰ Tib. *kyerim* (*bskyed rim*); Skr. *utpattikrama*. See Gyatrul, pp. 4-6

in the gradual visualization of a *maṇḍala* of deities above the vast summit of Meru.²¹ After having mentally created the support, that is, the structure of the *maṇḍala*, the practitioner imagines transforming himself or herself into the main deity, firmly seated on the unwavering throne at the centre of the realm, just like Indra, the king of the gods.

The activity of the central deity is the purification and transformation of the world, environment and beings. It is accomplished through the emission of rays of compassion and wisdom, together with the repetition of mantras. At the end of the process of creation, the practitioner visualizes the dissolution and reabsorption of the overall *maṇḍala*, then contemplates the true nature of consciousness, beyond any form, colour and activity.

After the meditation session, the practitioner should maintain the certainty of being the deity and living in a divine environment, where all beings equally share the same pure and luminous nature.

The manifestation of the *maṇḍala* of the deities is visualized on the summit of Meru, that is, in the outer world. Therefore, it is not possible to reject the Buddhist cosmological model and accept only the transcendent *maṇḍala* of the deities, even if all the indisputable reasons of modern cosmology are adduced. If one were to deny the cosmos taught by the Buddha, the basis of the manifestation of the deities' *maṇḍala* would be lost.

Mount Meru has a definite symbolic meaning: it is the axis of the world, and its summit is the abode of the paradise of Indra, the king of the gods; therefore, the visualization of the *maṇḍala* of buddhas and bodhisattvas on the summit of Meru indicates the conquest of *samsāra* and the consequent liberation of beings from the cyclic process of birth and death.

The denial of Buddhist cosmology would also imply the abandonment of the traditional ritual of *maṇḍala* offering. Thinley Norbu writes: "Even if some Buddhists do not see Mount Meru from their habit of reality, they still offer these mandalas with many auspicious substances and visualizations of infinite positive phenomena. How can they offer mandalas without believing in what they are offering? To reject the existence of Mount Meru is to cancel these offerings and the entire tradition of making mandala offerings. Since mandala offerings are taught in the Bud-

²¹ See Gyatrul, p. 54.

dha's own speech, which is always extremely positive and infallible, there is no reason to try to disprove them from a nihilist point of view."²²

If in *vajrayāna* one really wanted to abandon the Buddhist model of the universe, a new model of the *maṇḍala* of deities would have to be formulated. However, since the currently accepted cosmological model is that of modern science, it is not possible to devise a model of the *maṇḍala* of deities that includes it. The world must be included as the basis of the manifestation of the deities' *maṇḍala*, but its inclusion is in this case impossible, because the representation of the solar system is not a *maṇḍala*, so it does not allow any connection with the two fundamental characteristics of the deities' *maṇḍala*: the central position and the unwavering steadfastness of the principal deity, with whom the human practitioner should identify.

In conclusion, it is not possible that the Dalai Lama's abandonment of traditional cosmology refers to esoteric *vajrayāna* Buddhism, of which he is a great practitioner and teacher. Surely it only makes sense in reference to a form of exoteric Buddhism conceived taking into account contemporary society dominated by the modern scientific paradigm.

If one contends that Buddhism should play an active role in this society and that it can likewise contribute to the benefit of future humanity, it is necessary to abandon everything that hinders its understanding, for example, the cosmological model of *Abhidharma*. On the other hand, the Buddha's message of liberation does not depend on some cosmological model.

Instead, as far as the esoteric teachings of *vajrayāna* are concerned, the cosmology revealed by the Buddha cannot be abandoned, rather it must be properly understood, if necessary updating it, taking modern scientific language into account as well; however, any updating would require the traditional cosmological model to be re-examined by "great beings with psychic powers who travel through space, and see Mount Sineu", as Buddhaghosa stated in the 5th century.

In 1948 the orientalist Giuseppe Tucci arrived in Lhasa. During a party also attended by Heinrich Harrer, he was involved in a diatribe on Buddhist cosmology. Harrer writes: "I often met him at parties, and once before a large gathering he put me in a very false position by taking sides with the Tibetans against me in an argument about the shape of the earth.

²² Norbu, p. 126.

In Tibet the traditional belief is that the earth is a flat disk. This was being argued at the party, and I stood up for the spherical theory. My arguments seemed to be convincing the Tibetans and I appealed to Professor Tucci to support me. To my great surprise he took up a skeptical attitude, saying that in his opinion all scientists ought continually to be revising their theories, and that one day the Tibetan doctrine might just as well prove to be true! Everyone chuckled as it was known that I gave lessons in geography."²³

If mankind someday discovers that the Earth is not spherical, through such a discovery would it be freed from the painful becoming of *samsāra*? Surely the Buddha's answer would be categorical: no! In fact, from the perspective of his teaching, it makes no difference whether one believes that the Earth is spherical or flat. Until the true nature of the world is understood, one belief is as good as another.

The true nature of the world has nothing to do with the shape of the Earth. One who is convinced that the Earth is a disc, but believes that it really exists as it appears, is as ignorant as one who is convinced that the Earth is a ball and believes that it really exists as it appears.

The heart of Buddhist cosmology is not about the structure of the world, but about its true nature: as transient as a bubble of air in the sea and as illusory as a mirage of water in the desert. Only this knowledge can free human beings from the *samsāra* cycle of birth and death. Thus taught the Buddha:

"Just as a bubble may be seen,
just as a faint mirage,
so should the world be viewed
that the Death-king sees one not."²⁴

²³ Harrer, pp. 195-196.

²⁴ Sarada, pp. 722-724 (*Dhammapada* 170).

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